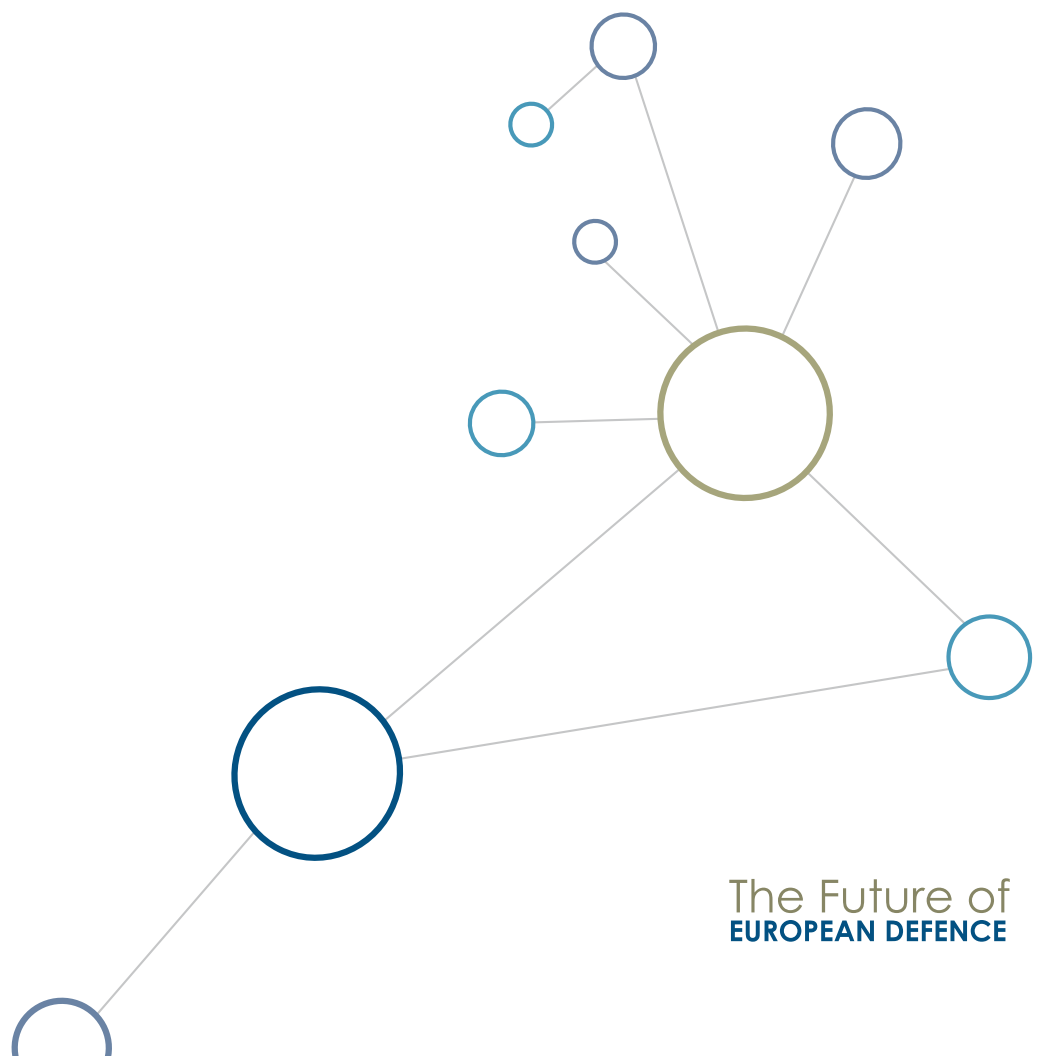


Aerospace & Defence

The Future of European Defence: Tackling the Productivity Challenge



The Future of
EUROPEAN DEFENCE

Preface

by Wolfgang Ischinger, Chairman, Munich Security Conference

In matters of European security and defence, the gap between rhetoric and policy is wider than in every other area of the European agenda.

In principle, Europeans have accepted that closer defence cooperation is essential in order to maintain, and hopefully expand, existing military capabilities. In the Franco-German declaration “Towards strengthened European Security and Defence” of 6 February 2012, for example, the two governments state: “In times of strategic uncertainty and limited resources, strengthened defence requires common procurement. As a consequence, we must be ready to take the necessary decisions.” These kinds of statements and declarations have become commonplace in the European debate. They are, if taken literally, a clear and unambiguous call for action, by the very players who can make it happen.

But the sad reality is that decision-makers have not yet been “willing to take the necessary decisions” and disagree about what that means. The concepts of, and ideas behind, “Smart Defence” and “Pooling & Sharing” have yet to gain real traction in the EU and NATO.

Everybody knows that the buck-to-bang ratio in Europe today is unacceptable. Put simply, in the face of ever-shrinking defence budgets, declining capabilities and very complex environments in which militaries operate, nothing less than Europe’s ability to be a competent security actor is at stake.

Whether it is Kosovo or Afghanistan, Libya or Mali: if we want to react better, and more adequately, to emerging conflicts, instabilities or mass atrocities, we must pool and share military capabilities in a much more substantial fashion. If we fail to do so, the combination of scarce financial means, more complicated tasks, an unpredictable security environment and a decreasing US focus on the Euro-Atlantic area will lead to a Europe that is permanently diminished as an actor on the international security stage.

The memories of the Libyan intervention, in particular, during which the two best-equipped European militaries struggled to get the job done, requiring massive US support, are all too fresh. Ivo Daalder, the US ambassador to NATO, said that Libya exposed “worrisome trends” in Europe’s ability to act without relying heavily on US help. For him, the lack of necessary munitions was “a signal that there is a lack of investment in critical core capabilities by the alliance, and that the continuing cuts in defence spending raise, over time, serious questions about sustainability”. NATO would not be able to undertake a similar campaign in ten years’ time if this were not addressed, he said. And unfortunately, he is quite right.

In order to improve this state of affairs concerning European capabilities, 2013 promises to be a particularly important year, as the European Council in December will deal with defence issues in a prominent way. It is not entirely hyperbolic to suggest that 2013 will be a ‘make or break’ year for European defence.

For this reason, the Munich Security Conference, jointly with McKinsey & Company, brought together a select group of political, military, industry and academic leaders in Berlin in April of 2013 for "The Future of European Defence Summit". This event was preceded by a round table with German stakeholders in December of 2012.

The report you have in front of you has been prepared by McKinsey & Company during this process. This independent study contains, for instance, key numbers and analyses with respect to long-term productivity and annual savings potential. I am confident that professionals from the industry, from the military and from politics will find this paper helpful and thought provoking when pondering options for the future of European defence.

The report is, of course, right in calling for pragmatic efforts – and outlining a number of feasible steps to be taken. I would submit that we need both – pragmatic steps and a political vision.

Of course, European integration in security and defence matters is hard. Not only do political, military and industry interests strongly intersect here. This field has also for centuries been part of the core of national sovereignty. For any meaningful change to take place, we are thus required to question and rethink long-established premises.

The Defence Minister of the Netherlands, Jeanine Hennis-Plasschaert, who is an important voice

in this debate posed a key question to this year's Munich Security Conference: "The question we have to ask ourselves is, should we really fear the loss of sovereignty? Or should we define the concept of sovereignty in a less traditional way?" Put differently, what is the worth of sovereignty, as traditionally understood, if it means hardly any European state can really act in security matters any more?

In the end, then, these questions all point to the really fundamental issues: our European security policy priorities, our level of ambition and, even larger, our purpose and influence in a world in which we will increasingly struggle to make ourselves heard. Do we resign ourselves to very modest, individual international roles, or do we truly join forces and pool our resources?

Again, many official statements acknowledge the necessity for combining our efforts ad nauseam. But the pressure to make good on these pronouncements apparently is not high enough yet.

The measures that are being prepared for the European Council will hopefully push us in the right direction. At the beginning of 2014, the next Munich Security Conference will offer a timely opportunity to review decisions made by the December summit, and continue the debate about the way towards more Europe in European defence.

Contents

7

What leaders expect for the future of European defence

10

The building pressures on European defence

24

Consolidating and sustaining the industrial base:
Implications for industry

33

Footnotes

8

Executive summary

14

Cut fat to keep muscle: Levers for government to boost productivity

31

Outlook: A pragmatic approach

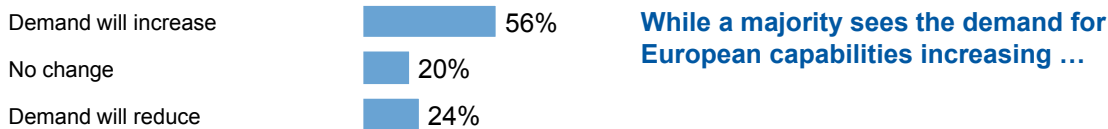
34

Contacts

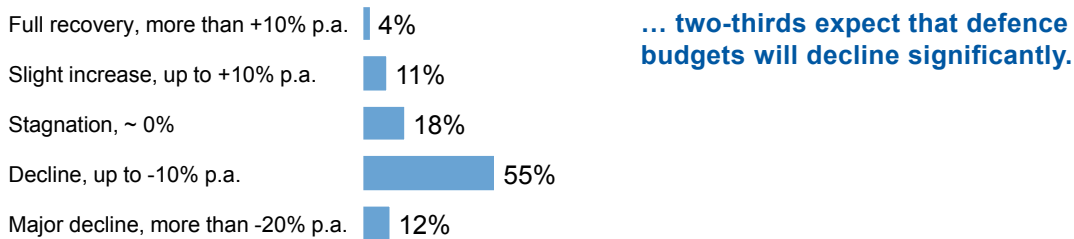
What leaders expect for the future of European defence*

At present there is a high degree of uncertainty about the future trajectory of European defence. A survey conducted during the Future of European Defence Summit, which took place in Berlin, 25 - 26 April, shows the perception of around 100 leading decision-makers from politics, the military and industry on five key aspects of the future of European defence.

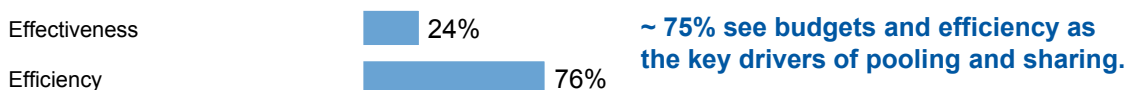
How will the demand for European defence capabilities change in the medium to long term?



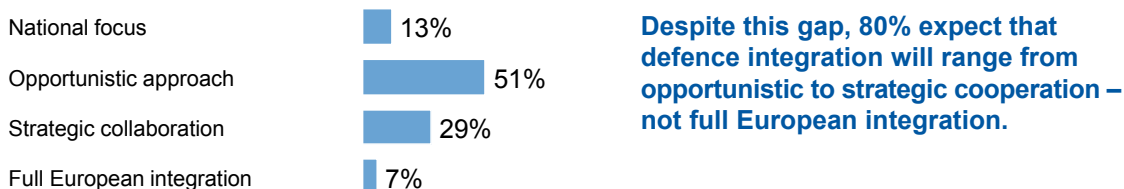
What are your expectations for the development of European defence budgets in the medium term in aggregate – compared to today's level?



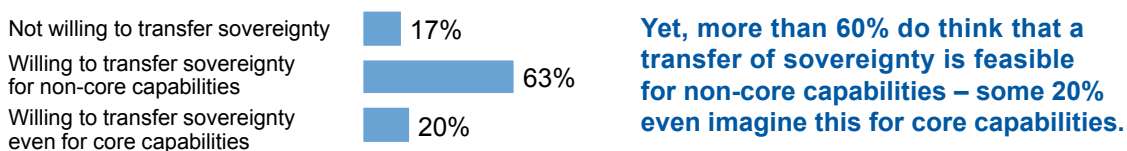
What is the main driver of pooling and sharing activities?



Which of the described scenarios do you believe best describes the future of European defence integration?



To what extent do you believe that governments are willing to transfer sovereignty to multinational command structures?



* Q1 - 106, Q2 - 83, Q3 - 82, Q4 - 72 and Q5 - 82 answers

SOURCE: Survey at the Future of European Defence Summit, Berlin, 25 - 26 April (organised by the Munich Security Conference with McKinsey as knowledge partner)

Executive summary

European defence faces an austerity challenge

A productivity imperative is arising from the widening gap between Europe's defence capability needs and its weakened finances. Efficiency gains must compensate for the financially mandated reduction of resources if governments are to achieve their stated level of ambition.

Pooling and sharing can help to secure level of ambition ...

Some rather limited pooling of Europe's aggregate procurement spend is already done, but much more is possible. We estimate the long-term productivity potential at about 30 percent of total procurement, or about 7 percent of all military spending. In 2012, the potential annual savings would have been EUR 13 billion.

Sharing, or the joint use of a capability, offers further opportunities for productivity gains, in maintenance and other functions. For example, sharing the deep depot-level maintenance of 12 major aircraft platforms would yield an estimated savings potential of about EUR 500 - 600 million annually.

Pooling and sharing would also promote standardisation of Europe's highly varied equipment

and platforms inventory; the resulting enhanced interoperability promises also to yield efficiency and effectiveness gains.

To realise this potential, issues of national sovereignty need to be addressed. Smart sharing models can avoid these sensitive questions. For example, shared equipment that is deployed with national rather than multinational forces can help maximise the potential whilst minimising loss of autonomy.

To be fully effective, pooling and sharing requires three major prerequisites: first, a process for joint capability planning has to be actively embraced. Second, transparency on procurement pipelines is required among partners. And third, an alignment of replacement cycles across collaboration partners has to be achieved. Possibly a European defence review could promote this process. This will take time to implement, with full gains only materialising over the medium to long term.

... but has to be complemented by national productivity levers

The benefits of pooling and sharing will take time to realise. To accelerate savings, national governments will need to optimise their discretionary spend in the short term. This is not about doing

less (cutting), but about achieving a better ratio. A broad array of levers is available, including:

- Design-to-value approaches, lowering costs by optimising the definition of requirements in equipment design
- Improved contracting, for example by striking new deals in which equipment providers retain ownership of assets, and instead provide the customer with availability
- Improving basic procurement and maintenance through risk-adjusted approaches, possibly through public-private partnerships.

The industrial base also faces structural challenges

Europe's industrial base remains fragmented and in certain areas sub-scale.

- Europe deploys six times the number of different weapon systems as the US – even though it spends only 40 percent as much
- In 40 percent of defence sub-sectors, Europe has twice as many competitors as in the US.

Industry is likely to see further privatisation and consolidation as European Union directives increase the pressure to liberalise the industry. However, the path to consolidation is not straightforward:

- Notably, and in contrast to the US, around a quarter of Europe's top 30 defence companies have large government shareholdings
- Recent consolidation has focused on smaller players, with few mega-mergers
- The interplay of European and national legislation will shape the extent of future consolidation; several scenarios are possible and require industry to prepare appropriate contingent strategies.

Decisions on consolidation of both the supply and demand sides need to actively consider the implications on Europe's industrial competences. The uncertain outlook has led to a drain of defence specialists towards other areas. To the extent that Europe will require the sustainment of current skills (e.g. fighter jet skills required for developing UAVs), such a drain can only be stopped through large "structuring programmes".

The building pressures on European defence

“Washington will not always take the lead when it comes to power projection. The United States will demand [...] that Europeans assume their responsibilities in preserving order, especially in Europe’s periphery.”

Anders Fogh Rasmussen,
NATO Secretary General^a

European governments are pinched between two pressures – a need to commit more resources to their collective defence and strait-jacketed finances. Governments have to confront a capabilities gap for the region as a whole with some stark deficits, as seen in recent deployments. To close the gap, government and industry will need to take three steps: improve pooling and sharing schemes, increase the productivity of their current spending and address a highly fragmented supplier base. The trade-offs involved in tackling these projects are complex but can be solved in a way that makes the most of diminished budgets and strengthens capabilities for Europe’s countries as well as the region.

A hard choice: greater responsibility, fewer resources

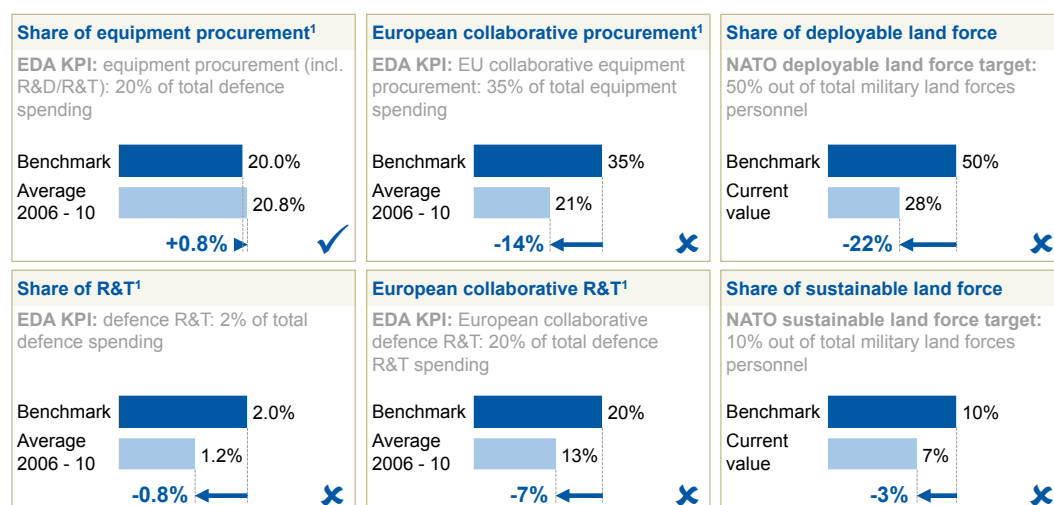
European governments face a structural dilemma, as confirmed by our April 2013 survey of leaders across politics, military and industry at the European Defence Summit in Berlin (see Page 7 for more on the survey). On one hand,

Europe is under pressure, both internally and from its allies, to take more responsibility for defence and security, especially in its immediate neighbourhood. The post-Cold War history of European deployments in Europe and joint NATO missions provide abundant evidence of such demands. Currently, US defence spending represents 72 percent of the NATO total – up from 63 percent in 2001.¹ NATO Secretary General Rasmussen has indicated that burden sharing and a clear European commitment to contributing to certain core capabilities – or even providing a full spectrum of capabilities – is desirable.²

On the other hand, and more importantly, according to our survey, a tightening fiscal environment is reducing government’s room for manoeuvre in national budgets. Seventy-six percent of the leaders surveyed find that the imperatives of budget austerity are the most important factor shaping European defence (vs. effectiveness considerations). Since 2009 almost all European countries have cut defence spending (and most other expenditures, too).

Exhibit 1

Strong need for action evident as even self-set targets on force deployability by EDA and NATO are currently missed by far



3 out of 4 self-set collaboration KPIs approved by the EDA Ministerial Steering Board are currently not met

In addition, a significant shortfall in deployable forces compared to NATO targets persists

¹ Benchmarks were approved by the EDA Ministerial Steering Board and apply to the total sum spent by all participating members. They are voluntary in the sense turning them into national targets is optional. There are no timelines for realising these benchmarks
SOURCE: EDA Defence Data 2010; NATO; McKinsey analysis

Some EUR 23 billion, or 7 percent of the total, has been lopped off.

The nature of the cuts made to date varies, but in the main they have fallen on equipment acquisition, training and personnel. Inevitably they have reduced capabilities. The cuts were applied to a level of defence spending that was already well below the NATO target of 2 percent of GDP, as most European countries had cashed in a Cold War dividend after the 1990s. Further cuts might take the form of a “post-Afghanistan” dividend. Our survey shows that European defence spending is expected to decline further in coming years; two-thirds of the leaders we surveyed expect another reduction; some 18 percent expect stagnation.

The twin pressures of more responsibility and tighter finances are already straining capabilities. With more frequent deployments, those deficits are becoming more visible. Across the board, European forces cannot meet NATO’s current goal for 50 percent of total military personnel

to be deployable. Nor do they do any better on sustainable deployment: the NATO objective of 10 percent of total military personnel cannot yet be reached by European forces (Exhibit 1).

While current operations have not yet tested this constraint, it cannot be ruled out in the future. Recent deployments have already shown some strain. Mission Unified Protector, in Libya, exposed a gap in Europe’s operational capabilities, and reminded governments of the need to be prepared for more out-of-area missions.³ Specifically, Libya showed a need for frontline capabilities including fighter-bombers and warships, surveillance, refuelling and drones.⁴

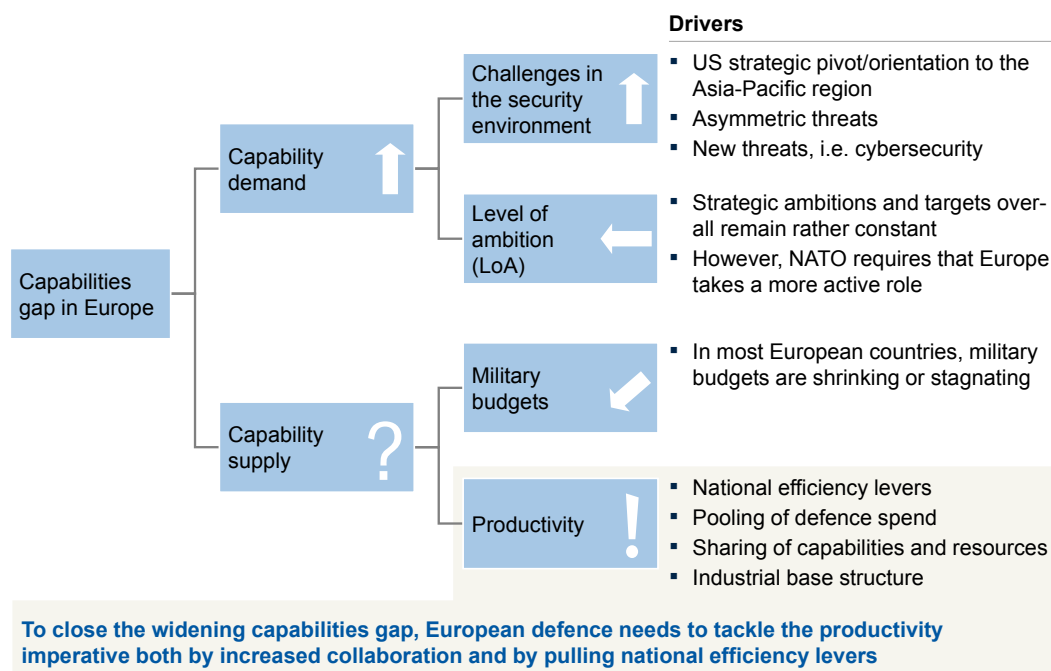
No virtue like necessity? The capabilities gap and the trade-offs to be made

The majority of leaders we surveyed expects capability gaps to widen in the medium term, as Europe’s ability to fund its level of ambition in defence declines (Exhibit 2). The reason is simple. While ambition and the level of security

To achieve the stated levels of ambition, efficiency gains have to compensate the budget reductions.

European defence faces a widening capabilities gap

Exhibit 2



threats play a critical role in shaping defence spending in the near term, in the medium to long term it is national economic and fiscal strength that plays a determinative role.⁵

At the same time, 80 percent of the leaders we surveyed say they see scenarios of either opportunistic or strategic collaboration as the most likely response by governments to the current challenges. Neither a reversion to national approaches nor full-scale integration – a European army – are seen as likely paths in the future. Thus, it is the necessity of the budgetary circumstances rather than the virtue of wanting to create a European army, that is driving the current approach to Europeanising defence as well as pooling and sharing.

Particularly for smaller countries the new paradigm has become “pool it or lose it”: the decision of the Netherlands’ Ministry of Defence (MOD) to phase out its sole tank battalion illustrates the pressure on governments, the speed of the required decision-making and the way that capability gaps are formed. For small and medium-sized forces, the economics of large fixed costs mean that for capabilities in which they have subcritical mass, a reduction of breadth (i.e. the elimination of the entire capability) is a more economic decision than a reduction in depth. But while that may be optimal for the national government, for Europe as a whole, such choices can create new capability gaps, especially if based on unilateral decisions.

For larger countries the challenge lies in sustaining broad capabilities by themselves in the absence of coordination arrangements with smaller countries. Eliminating an entire capability has been less of an option for the larger countries, which tend to focus on reductions in depth. But with a large installed base of equipment, trade-offs in cutting budgets and capabilities are easy to miscalculate. Various lagging effects can turn seemingly marginal decisions into disproportionate reductions in combat power. Take the case of the CH-53 heavy-lift helicopter, which had an installed base in Germany of about 80 aircraft in 2012 (Exhibit 3). The Afghanistan mission showed that only a quarter of the installed base was mission ready

by having the required sand filters. Only half of the mission-ready helicopters were deployable and not tied up in maintenance or on training missions. The actual capability turned out to be rather small.

This illustrates why seemingly small cuts to a large inventory can either have no effect, if made to the non-deployable CH-53s, or can cut the capability by a disproportionate amount, if for instance budget cuts were to prevent an upgrade such as installing sand filters. The decisions made in this context affect the fighting muscle significantly.

As it happens, the German army chose to invest – despite overall budget cuts – in a programme of modernisation and life extension, actually enhancing its capability. But the example still holds: seemingly marginal decisions in equipment can have a potentially large impact on combat power. Similar effects can be felt from cuts to enabling capabilities such as trained specialists or ground staff.

The productivity imperative

With an uncertain threat environment, countries are reluctant to reduce their ambitions. But with budgets shrinking, maintaining that ambition means governments should pull all available productivity levers. To paraphrase the American expression, they must derive “more combat power for the euro”. Ultimately, countries need to make ends meet within the parameters set by the collective political will for more, but not full-blown cooperation, and the nation’s aspiration for force projection as well as national sovereignty.

To accomplish that, countries across Europe must tackle defence efficiency on three levels:

- First, they need to find a more cooperative and pragmatic model of *pooling and sharing*. Current political will for concrete cooperation is low and provides only limited room for countries to integrate their capabilities. But as a medium- to long-term strategy, pooling and sharing can be a smarter way of organising defence to overcome the inefficiency of dozens of national governments attempting

“As defence budgets are cut throughout Europe, the only way forward is more cooperation. [...] ‘pool it or lose it’ is becoming a reality.”

Lady Catherine Ashton,
High Representative of
the EU^b

to provide similar capabilities, with the expected and costly redundancies.

- Second, national MODs must step up *productivity of spend on the national level* and ensure that they cut fat, not muscle. National armaments and procurement directors can save 10 to 20 percent of total military budgets (before pension costs), depending on the country and its force structure. Even better, these moves will cut costs without reducing capability. Three categories of levers are available: clarifying true capability requirements, capturing functional efficiencies in all areas of spend and reducing non-combat personnel.⁶
- Third, government and industry need to *address the current fragmentation on the*

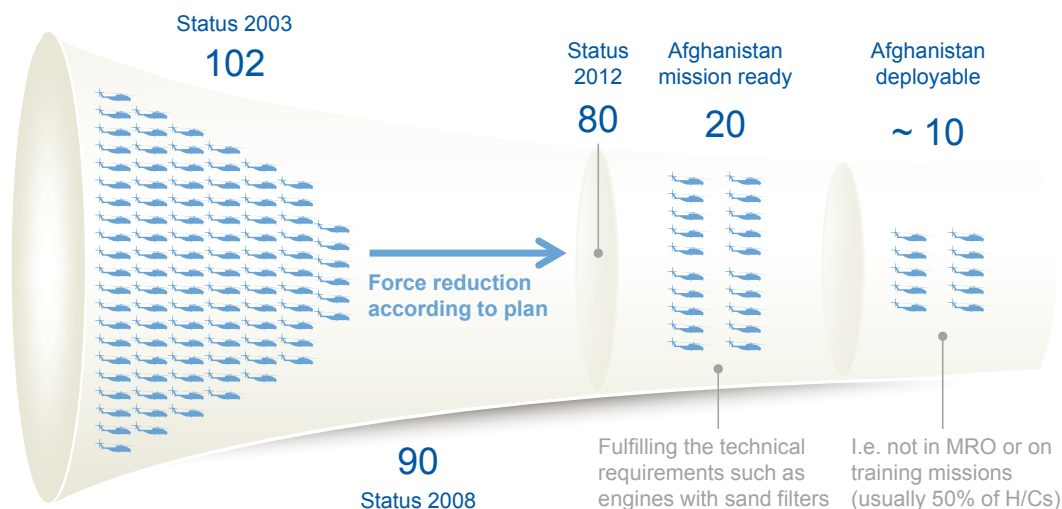
supply side through segment-specific consolidation. The European defence sector remains highly fragmented along national lines, with a multiplicity of national competitors operating at sub-efficient scale. Consolidation can unlock supply-side efficiencies such as higher plant utilisation and workforce optimisation to reduce unit costs. Only through consolidation can industry meet the affordability challenge – the need to produce military equipment that governments can afford.

In the following chapter, we explore the first two points, which are standalone steps open to national governments. The subsequent chapter takes up the third point as well as the implications for industry.

Europe needs more combat power per Euro.

Budget cuts expose hollow capabilities and smaller central capabilities than suggested

Exhibit 3



Despite the 20% cuts since 2003, the CH-53 transport capability is still sufficiently strong in the books (80), but the actual deployable force in the Afghanistan mission was only a fraction of that number (~ 10)¹

¹ Number of assets as of 2012

SOURCE: Military Balance (various editions); Deutscher Bundestag printed paper 16/8225; expert interviews; Hardthöhenkurier 03/2006; McKinsey analysis

Cut fat to keep muscle: Levers for government to boost productivity

A more integrated and efficient provision of defence capabilities across Europe will be a transformative effort of many years and even decades. The long life cycle of defence equipment, the large installed base as well as the national orientation of processes and mindsets create a strong path dependence, bringing to mind the old saying about turning around a supertanker.

To start steering in the direction of a more efficient and cooperative approach to capability provision, a clear business case is required, with the right incentives for both industry and MODs. In this chapter we will attempt to make that case, outlining two sets of concepts – collaboration among countries as well as productivity improvements within national defence organisations – and estimating their potential, where this can be done in a reasonably sound manner. To be sure, realising the potential will be exceptionally difficult, requiring political will and excellent implementation. Still, we argue that knowledge of the orders of magnitude involved can help leaders make informed decisions.

Pooling and sharing's efficiency potential

As a relevant benchmark for a more consolidated defence structure, the US presents a plausible though not perfect comparison. Though the two regions are similar in many ways, Europe spends less than half as much as the US on defence, and the pattern of spending is different. Europe's budget is administered through 27 national defence budgets, limiting its effectiveness. The fragmentation this creates is visible in Europe's weapon systems, where several variants are typically in use at any one time – in fact, six times as many as in the US (Exhibit 4).

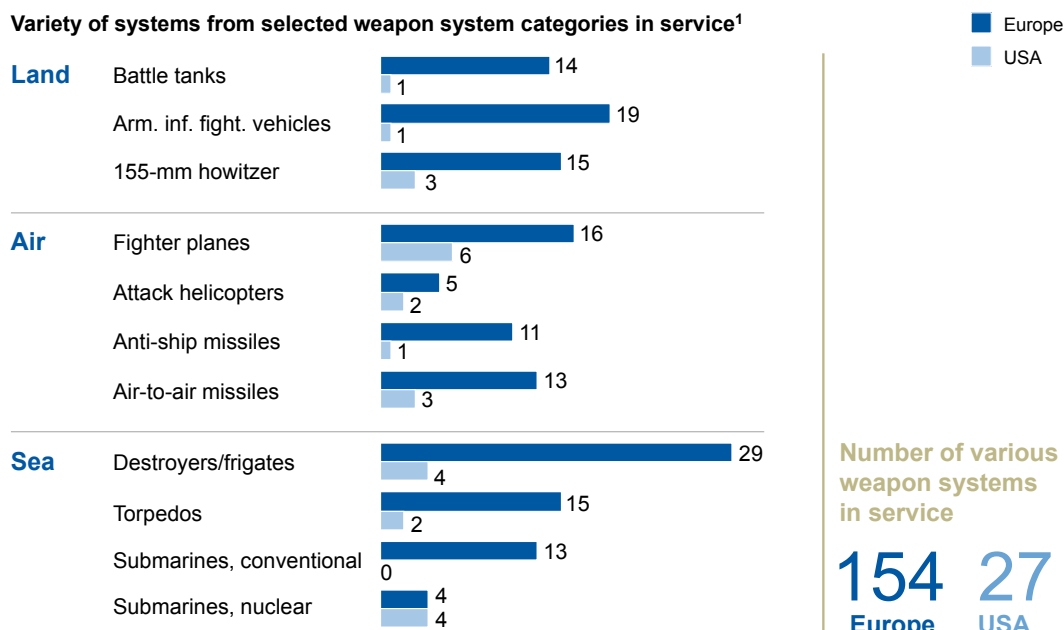
Given the high share of fixed costs in defence equipment, this fragmentation is clearly inefficient. Moreover, over the long life cycle of the procured equipment, the costs of high variation in platforms translate into higher costs of maintenance and operation.

Europe employs six times the number of weapon systems as the US.

Exhibit 4

The fragmentation in the European market is visible in the number of various weapon systems available

Variety of systems from selected weapon system categories in service¹



¹ For Europe, the EDA members as well as Denmark, Norway and Switzerland have been taken into consideration
SOURCE: Military Balance 2012; McKinsey analysis

To get past this problem, governments have for some time discussed and worked together on cooperative schemes for capability provision. Today, two concepts dominate the thinking: NATO's Smart Defence and Europe's pooling and sharing programme. Both concepts share the underlying assumption that a more coordinated conduct of defence can yield higher output when budgets are likely to stagnate or decline further. Much of the discussion below of pooling and sharing is relevant also under Smart Defence. See "Complementary, not competitive" on Page 22 and Exhibit 5 for more on the two concepts.

The potential for collaboration, as we discuss below, is vast. However, across Europe, pooling (broadly understood as the joint procurement of military goods or services by two or more partnering nations) and sharing (joint use of capabilities that are collectively administered) are still under-utilised, making acquisition, maintenance and usage of defence materiel inefficient. According to the European Defence Agency, countries currently spend only around

23 percent of their defence equipment procurement collaboratively – significantly less than the target of 35 percent set by EDA's Ministerial Steering Committee.

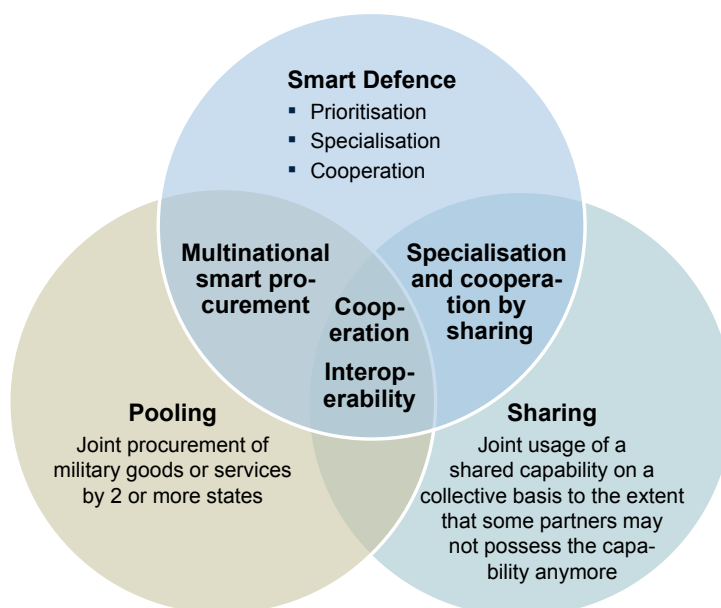
Pooling

Governments commonly see three rationales for pooling, each with significant potential.

Lower procurement costs by unlocking economies of scale. To demonstrate the enormous long-term potential at stake, consider this rough estimate: if Europe were to consolidate its aggregate demand to the same level as the US enjoys, average batch sizes would be 570 percent bigger. Put another way, order volumes would be doubled 2.5 times. Our analysis and experience shows that on average each doubling of volume results in an efficiency increase of approximately 20 percent. Applying this effect to the 40 percent labour cost share typically found in weapon systems, the total savings potential amounts to 17 percent of total weapon system procurement

NATO's Smart Defence framework and Europe's pooling and sharing concept have some overlap – both focus on efficient cooperation for capabilities

Exhibit 5



SOURCE: NATO Smart Defence definition; McKinsey analysis

Pooling can improve compatibility and creates real effectiveness gains in operations.

costs. To put this into perspective, as a share of the annual European procurement volume of roughly EUR 43 billion, this would amount to an overall pooling potential of EUR 7 billion, just from labour cost savings. Materials will also yield savings (Exhibit 6); manufacturers can capture volume discounts from suppliers, which our experience shows to be around 10 percent for each doubling of the order volume. This yields some additional 14 percent of savings potential given the consolidation potential described above. While exact calculations by material category are subject to many specific design variables that cannot be presumed here, this top-down estimate suggests that long-term economies of scale of up to 30 percent of investment are sufficient to motivate a greater effort to pool resources.

Lower maintenance and follow-up costs.

Pooling can significantly reduce maintenance costs, as governments trim the number of weapons and other systems to be maintained. Pooling creates a broader base of common equipment,

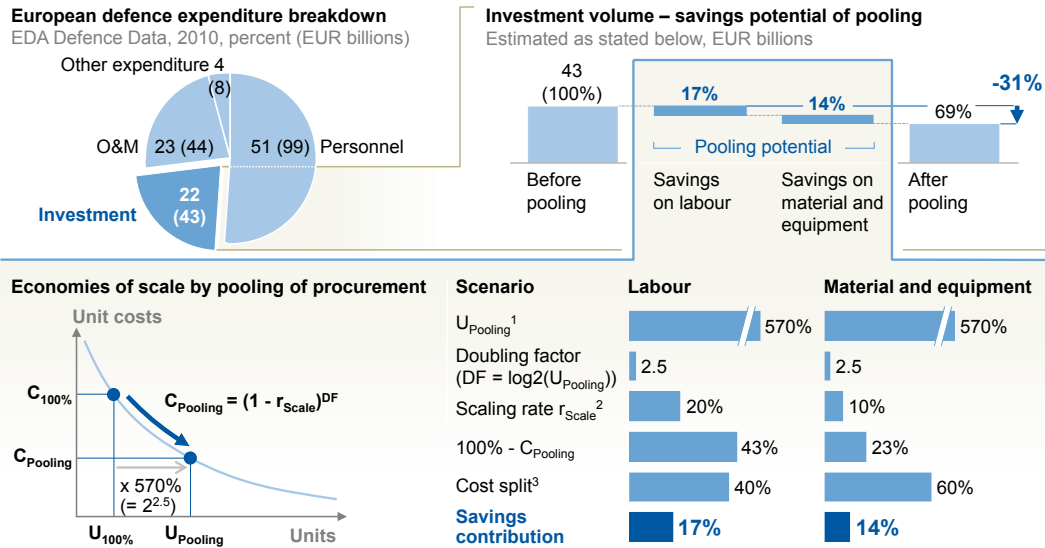
dramatically increasing the potential for multinational cooperation in weapon system maintenance. In recent years, many efforts by various MODs have shown that centralising some maintenance tasks increases “wrench time” and lowers the cost of spare parts inventories. We discuss maintenance savings based on common platforms in the section on sharing, below. As platforms converge, these savings of course multiply accordingly.

Better interoperability of equipment.

Equipment compatibility plays an important role in successful multinational missions, but has often been one of the major challenges. For example, compatibility among communication systems used by various nations participating in the International Security Assistance Force in Afghanistan was poor. Likewise, aircraft tankers’ compatibility with fighter jets of different nations during the Mali mission was a significant problem. Pooling can improve compatibility and creates real effectiveness gains in operations, which can be priceless in multinational missions.

Exhibit 6

Pooling provides an estimated savings potential of up to 31%



1 Assuming that the current number of 154 European weapon systems can be reduced to the US level of 27, the average batch size increases by 570%
2 C. Lanier Benkart: Learning and forgetting – The Dynamics of Aircraft Production
3 RAND, 2008: Why has the Cost of Fixed Wing Aircraft Risen?
SOURCE: McKinsey analysis

To tap this large potential of efficiency gains, three major challenges have to be addressed.

First, at the moment there is not much to pool. Due to the pressure of shrinking budgets, procurement pipelines are nearly empty, as new programmes have been reduced as part of the discretionary spend. However, while major programmes will probably remain rare for the next several years, setting the direction for European pooling today will pay dividends in the future.

Second, product replacement cycles are not aligned among countries. Even with an agreement on equipment categories for pooling, a multinational synchronisation of product replacement cycles will be necessary. Due to the long lifetime of weapon systems, aligning the replacement or upgrade cycles is not a trivial task and requires a careful consideration of the pooling potential and the costs of extending the life of some equipment, or similar measures.

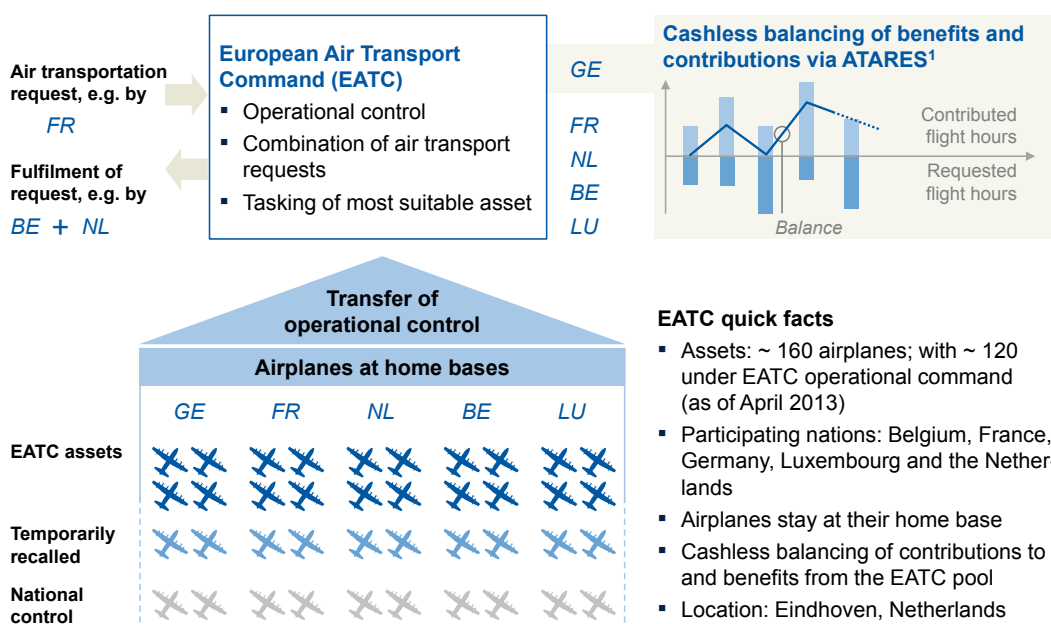
Finally, the full gains of pooling materialise only in the long term. To be sure, getting the most out of pooling will require a long haul. As discussed, the long lifespans of weapon systems and the need to align requirements mean a long ramp-up time before the full pooling potential can be accessed. In combination with national levers, discussed below, programmes that also yield short-term gains can be designed.

With a total long-term annual potential of roughly EUR 7 billion available from economies of scale on labour alone, governments should dedicate considerable effort to exploit the opportunities as they arise. First steps in this direction have already been taken, for example in the procurement of tanker and transport aircraft. However, these efforts now have to be seen through from beginning to end and have to ensure full specification alignment and standardisation to fully realise the large economic potential that lies in pooling.

Aligning replacement as well as upgrade cycles is not a trivial task.

The workings of EATC enable an effective and efficient use of national transportation assets

Exhibit 7



¹ Air transport, air-to-air refuelling and other exchanges of services technical arrangement
SOURCE: EATC presentations 2011/13; EATC web site; press research; McKinsey analysis

Sharing is best understood as several options along a spectrum of autonomy.

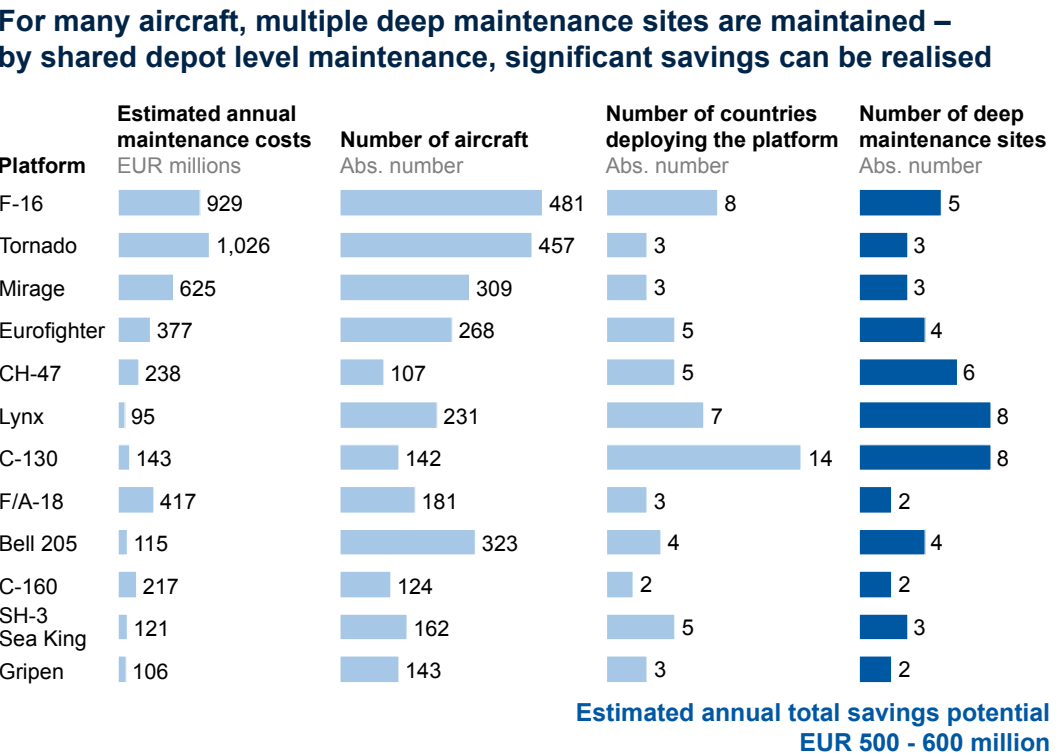
Sharing

Sharing equipment and personnel provides additional scope for international cooperation to enhance the productivity of European defence. With 28 percent of Europe’s forces deployable, but only about 4 percent actually deployed, provisioned equipment is underutilised. Sharing is often said to be more politically sensitive than pooling, as in its most advanced form it entails full specialisation of countries along capabilities and therefore significant trade-offs with the autonomy to decide over the use of the assets. In its simpler forms, however, it is no more threatening to national sovereignty than pooling. Sharing is best understood as several options along a spectrum of autonomy, ranging from forms in which little control is ceded by the owner of the assets, such as the European Air Transport Command (EATC), to highly integrated plans in which most autonomy is surrendered. Such a plan might entail one country providing air-to-air refuelling for all other nations involved in a given deployment. Three examples illustrate the range of options and the potential savings involved.

Example 1 – The EATC provides a successful example of sharing on a large scale (Exhibit 7). Five countries (Belgium, France, Germany, Luxembourg and the Netherlands) share about 120 aircraft to conduct air transport, air-to-air refuelling as well as aeromedical evacuation. The EATC takes multinational collaboration a big step forward. Operational control rests with the EATC, in contrast to the European Air Transport Fleet (EATF) or the Movement Coordination Center Europe (MCCE). Only a few of the aircraft, mostly VIP transports, are still under national control and not shared. The assets pledged to EATC are dynamic since they can be temporarily recalled, assuring availability for national tasks. Each partners’ contribution and usage is monitored and balanced through the cashless ATARES (Air Transport, Air-to-Air Refuelling and other Exchanges of Services) system, which provides a multinational framework for the exchange of services in air force activity.

The programme shows the extent to which benefits of sharing can be achieved without far-reaching agreements to surrender sovereignty.

Exhibit 8



SOURCE: Military Balance 2012; Military MRO database (Aviation Week); company Web sites; press research; McKinsey analysis

EATC has raised the number of cross-national transport missions by the cooperating nations by 30 percent and reduced costly repositioning flights by 7 percent. Because of their new access to a greater amount of resources in the EATC pool, partner nations were able to withdraw from contracts with commercial providers, generating savings. And the sharing of command structures reduces the number of required personnel, again saving costs. See “The case for the EATC” on Page 23 for more information on this sharing example.

Example 2 – Sharing of maintenance depots and personnel. Maintenance, repair and overhaul (MRO) of military equipment can also benefit from collaborative models. Examples include a programme to share the maintenance of the Lockheed Martin F-16 Fighting Falcons of the European Participating Air Forces (EPAF), which consist of Belgium, Denmark, Norway and Portugal.

Yet, the potential for more sharing of this kind remains large. A significant number of platforms

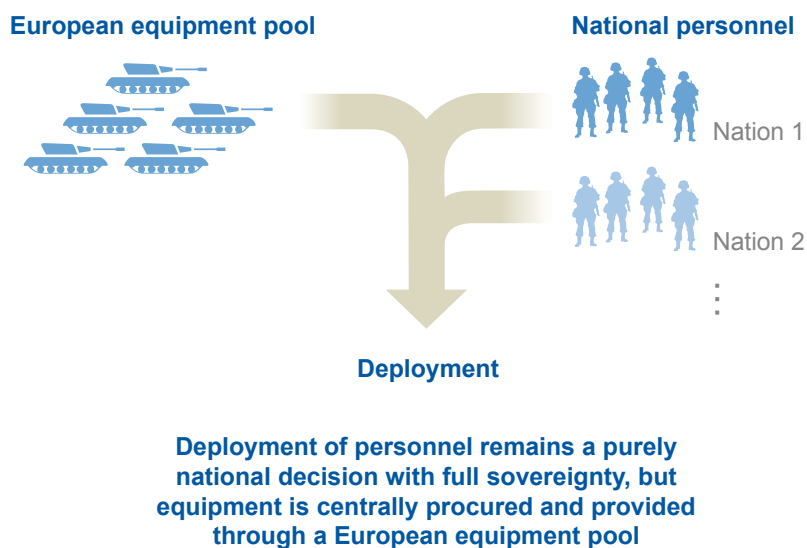
common to several countries are still nationally maintained. In many countries, line-level maintenance (A- and B-checks) is usually performed at the airbase, and depot-level maintenance (C- and D-checks) typically takes place at specialised maintenance sites. Depot maintenance is time-consuming, costly and could be centralised at one maintenance site per platform, shared by various militaries. Depending on the current number of sites and the differences between variants of a platform, a savings potential per platform can be estimated as shown in Exhibit 8. For the top 12 platforms, the potential savings on annual maintenance costs is roughly EUR 500 - 600 million.

Example 3 – Full integration and specialisation is a model in which some partners become the sole providers of a capability that others have given up. The economic potential of such specialisation is large, as nations can close down a national capability in return for access rights to a capability provided by other countries. One way to reduce equipment numbers and get more impact is to merge resources in a European equipment pool,

The European Air Transport Command (EATC) demonstrates that sharing really works.

Smart sharing models will play a key role to resolve the sovereignty dilemma

Exhibit 9



similar to the many concepts that have emerged as part of the new sharing economy in the civilian sector, e.g. car sharing.

The NATO E-3A Component, a fully integrated multinational unit, flying planes equipped with airborne warning and control systems (AWACS), is such a programme. Based on multinational manning, the NATO E-3A Component has alternating commands and five functional elements (Operations Wing, Logistics Wing, Base Support Wing, Training Wing and Information Technology Wing), which are commanded by different NATO member nations. As the only fully integrated flying unit, however, it remains a unique model. For certain capabilities or elements of maintenance, the private sector could increasingly step in to manage such pools in an efficient way based on clear service level agreements.

Giving up control of assets and the perceived threat to sovereignty that results does not need to be a roadblock. To mitigate sovereignty issues, deployable equipment and national personnel

can be separated (Exhibit 9). This would allow for multinational sharing of equipment while still having full national sovereignty over personnel. Ultimately of course, in those areas where scarce equipment and personnel resources are concerned, sharing will represent a trade-off with sovereignty. However, as argued here, there are many other possible forms of sharing to reduce these trade-offs that should be considered to realise the productivity gains.

Beyond pooling and sharing: National levers for smarter defence

Our rough economic assessment of pooling and sharing reaches a double-edged conclusion: Europe has significant savings potential, which can help it to provide defence capabilities more productively. But much of that potential can only be realised in the long term. Given the magnitude of recent budget cuts, European defence requires some short- and medium-term solutions as well.

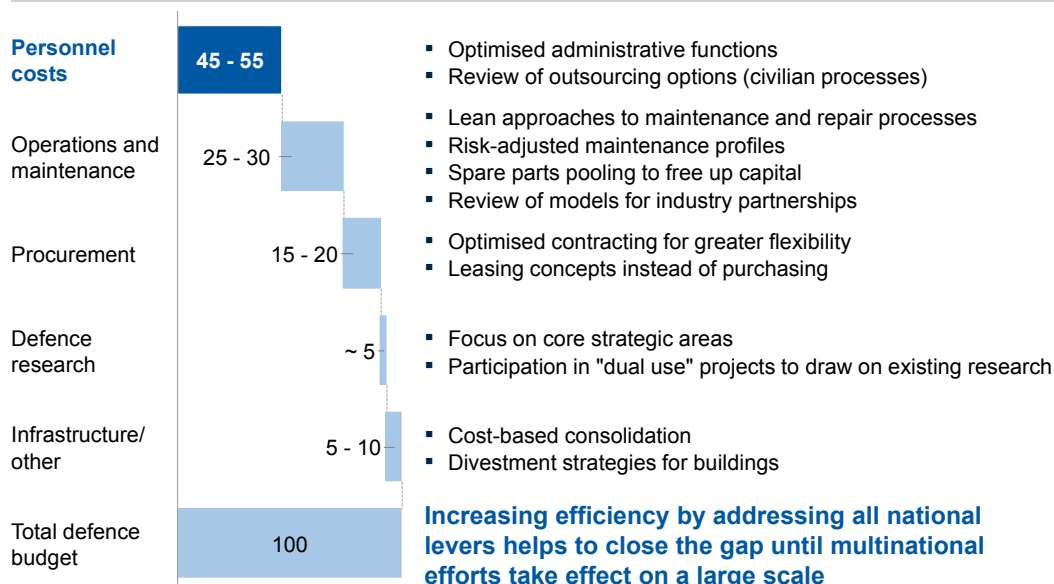
Sovereignty issues can be solved and must not be a roadblock.

Exhibit 10

National levers yield efficiency and enable effectiveness in times of austerity – major optimisation potentials in maintenance and procurement

Split of defence budgets
Percent

Exemplary levers for optimisation



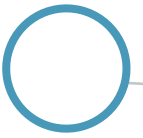
SOURCE: McKinsey analysis

In this regard, national levers come into play, as these are steps that MODs can take without the need to build consensus among allies and without fear of sacrificing sovereignty. A closer look at the defence budget, as shown in Exhibit 10, pinpoints the areas with the highest potential for savings – personnel, as well as operations and maintenance. These levers include optimised administrative processes, risk-adjusted maintenance, new leasing concepts, dual-use research projects as well as divestment strategies for some property and buildings.

Importantly, many of these levers not only cut costs, thus improving efficiency, but also create more military output. In maintenance, for example, several levers developed in the private sector can help to increase availability of equipment, such as aircraft, and produce more flight hours for the current fleet. Lean manufacturing principles can make site layouts more efficient, ensure that inventories stay low, deliver parts “just in time”, and streamline the flows of parts and staffing of personnel.

Other steps can reduce throughput times significantly while both reducing costs and increasing availability time. These include better synchronisation of MRO processes, front loading of work, integrated teams, detailed load/capacity planning and the definition of critical paths. As MODs drive efficiency in maintenance, they will need a clear focus on both capital expenditure productivity as well as operational expenditure efficiency, and a clear understanding of the right tasks to conduct in-house and those that can be safely outsourced. When third parties are brought in, contracting should be optimised through cost/impact evaluation and new incentive systems. Some MODs are already pursuing this course of action.

Pooling and sharing alone does not solve the challenge – they have to be complemented by national levers.

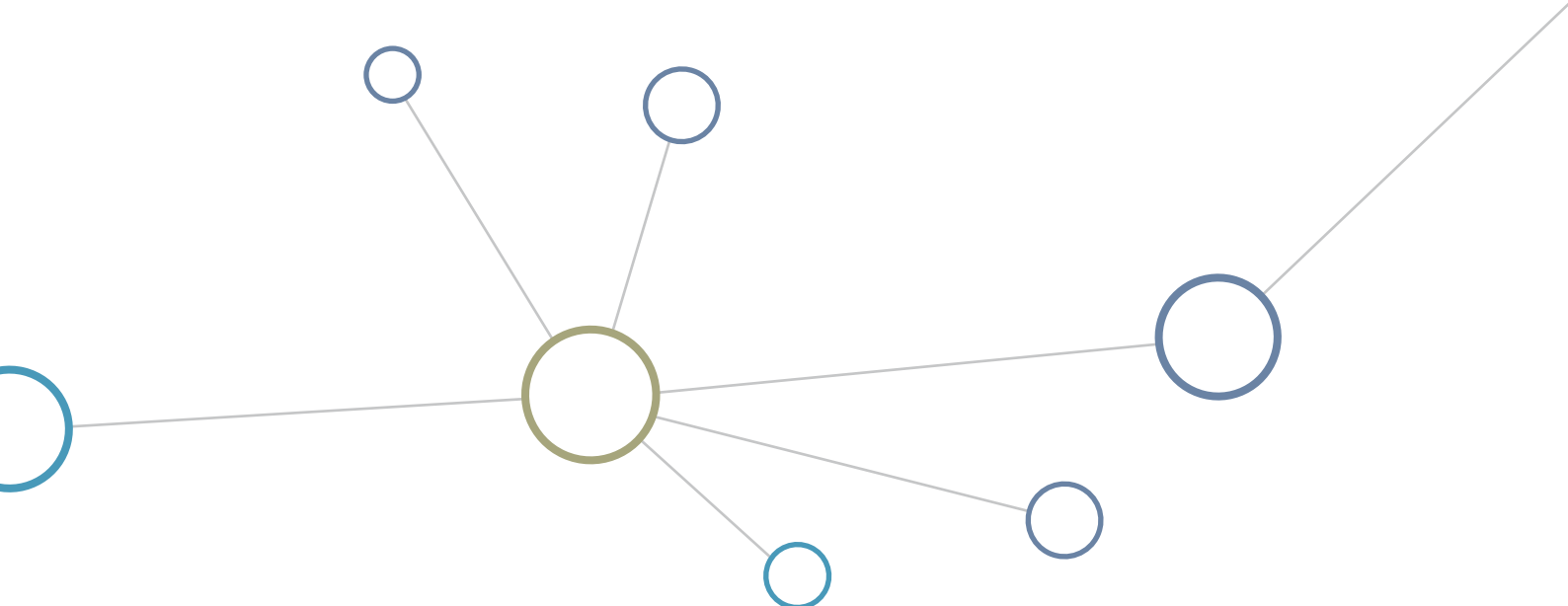


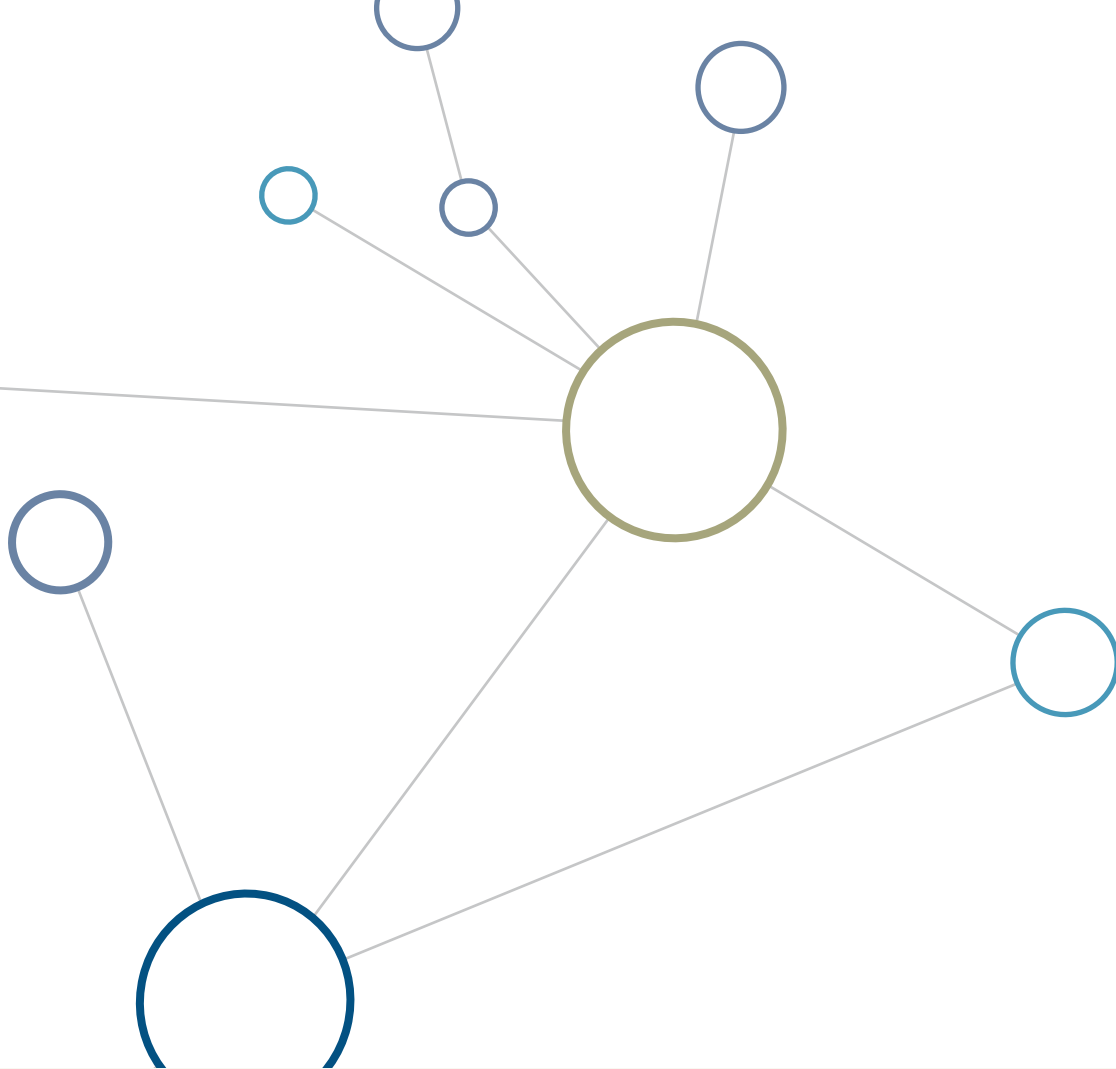
Complementary, not competitive

NATO's Smart Defence is a top-down approach to meet essential capability requirements in a transparent, cooperative and cost-effective manner. The concept is built on three pillars: prioritisation, specialisation and cooperation. Prioritisation is the process of aligning national capability priorities with NATO's strategic aspirations. Specialisation aims to counteract the capability gaps described on Page 12 through a strategically aligned approach in which allies focus on complementary fields of specialisation, so that NATO's capability requirements can be met even as national budgets are trimmed. The third pillar, cooperation, consists of activities amongst allies, including bilateral projects or the formation of collaboration clusters. Cooperation includes the common use of assets, the sharing of capabilities and collaborative R&D efforts.

Pooling and sharing is the European Union's framework for multilateral collaboration. While pooling and sharing was first conceived in the 1990s, present circumstances have given the concept new momentum.

As both concepts focus intently on collaboration, there is considerable overlap. For example, collaborative or "smart" procurement, which forms the core of pooling, is also covered by the third pillar of Smart Defence. In addition, sharing and the idea of strategically aligned specialisation form the central notion behind the second pillar of Smart Defence. Both projects have similar implications for interoperability: in both, the interoperability of multiple capability providers is of central importance, though not explicitly discussed. The goal will be achieved as a consequence of implementing the concepts.





The case for the EATC

The European Air Transport Command (EATC) was created in September 2010, in response to a widening capabilities gap created by national governments' austerity budgets. Recent missions had revealed a deficit in air transportation and air-to-air refuelling (AAR). The allies involved had insufficient numbers of aircraft in inventory, and these assets were used inefficiently and ineffectively. A fragmentation of assets and national control structures were identified as the sources of the problem. Further, national regulations hindered interoperability in some cases, such as AAR, in which it was technically feasible.

Productivity impact

Having been operational for nearly three years, achievements in efficiency and effectiveness are apparent. According to EATC reports, the number of flying hours exchanged by the EATC nations through the ATARES system is now eight times higher than at the beginning of the EATC. Cross-nationally executed transport missions (part loads and passengers) are up by 30 percent and costly repositioning flights are down by 7 percent. And more partial loads are now aggregated and shipped together, reducing the number of flights. Costs are lower, as some third-party contracts could be terminated by EATC partners, and the command structure for the EATC assets is now shared. The EATC allows its partner nations greater access to resources of a type and volume otherwise unavailable to them. A more efficient use of resources leaves more flight hours available to training, increasing mission capability.

More is to come. The certification process of the Airbus A400M established some common certification requirements, paving the way for future gains. EATC, tasked by France and Germany (joined by Belgium representing Luxembourg), was able to bring its partners together to harmonise and coordinate joint pilot and loadmaster trainings in the course of the A400M's introduction. This includes work on a common operations manual.

The benefits are becoming increasingly apparent to other nations. Luxembourg joined in 2012. More recently, Spain has asked to join, and as of March 2013 was in the assessment and accession process.

Consolidating and sustaining the industrial base: Implications for industry

Budgetary constraints strongly drive consolidation of demand in the form of pooling and sharing of assets and equipment, as discussed in the previous chapter. Such initiatives have the potential to unlock economic efficiencies in the medium to long term. These demand-side changes can also give renewed impetus to the consolidation of the supply side – a reduction in the number of firms competing to supply government with defence products and services.

The European defence industry has integrated to a degree but remains fragmented. Mergers and acquisitions in the late 1990s and early 2000s produced a few companies with the scale needed to lower costs such that their products can be priced competitively in international markets.

Further consolidation could yield additional efficiencies such as higher plant utilisation and workforce optimisation, reducing unit costs. But the next level of consolidation has proved elusive. It is not remarkable that Europe's defence industry, both in aggregate and its individual segments, is fragmented. But the extent of that fragmentation

is remarkable. Again, a comparison to the US is apt. Because the US is a single market, and because the government encouraged the formation of conglomerates, the US defence industry is heavily consolidated. This is the result of a concerted consolidation effort by the Pentagon in the early 1990s, which gave impetus to industry to merge. Despite the considerably higher US military government spending, still in more than 40 percent of the defence market segments, the number of competitors in the EU exceeds the respective number in the US – a clear indicator of further consolidation potential.

Will the urgency of the present moment be enough to ignite a new wave of consolidation? In this chapter we review the rationales for consolidation and present some scenarios to frame an understanding of how the next wave might unfold.

Industry consolidation

The last consolidation wave some 10 to 15 years ago, in both Europe and the US, was triggered

Exhibit 11

The motivation behind M&A activities in the defence industry is largely driven by the following levers

Levers of value creation	Description
Productivity improvement/operational excellence	<ul style="list-style-type: none"> Identify and transfer internal best practices (e.g. sourcing, pricing, production, logistics)
Supply chain economies of scale	<ul style="list-style-type: none"> Leverage combined scale to change network configuration and eliminate redundancy Eliminate overlapping and redundant functions
Back-office economies of scale	<ul style="list-style-type: none"> Develop and implement common processes, systems and tools Streamline compensation benefits and policies
Sourcing scale/bargaining power	<ul style="list-style-type: none"> Capture immediate repricing opportunities from identical/similar suppliers; confirm additional volume rebates
Capacity reduction	<ul style="list-style-type: none"> Rationalise locations to reduce overcapacity and increase remaining store productivity
Unlock organic growth potential	<ul style="list-style-type: none"> Provide capital/expertise that target needs to achieve optimal organic growth
New growth synergy (forward or back)	<ul style="list-style-type: none"> Expand into new categories/products that leverage existing customer base

SOURCE: McKinsey analysis

by a re-sizing of the sector after the “Cold War dividend” was paid out of defence budgets and into other national accounts. Contrary to common belief, acquisitions in Europe have continued since that first wave (Exhibit 12). However, the number of transactions per year is considerably less than in the US. Furthermore, the acquisitions are on a smaller scale than in the US with very few mega-mergers taking place.

In light of austerity, the industry has again become more cost-conscious and companies are attracted to the productivity gains that M&A can produce, seeing this as a strong potential source of competitive advantage. With all eyes on the bottom line of European defence budgets, further consolidation with the aim of realising economies of scale is likely.

But cost savings is not the only motive (for further motives see Exhibit 11). Market access and growth synergies also feature prominently in an industry in which access to the customer is crucial and often limited to local players. As Exhibit 12 shows, since

the early 2000s, European firms have been more actively buying stakes in the American market than vice versa. European companies have no doubt been motivated to gain access to what has been a much more strongly growing market in the past decade.

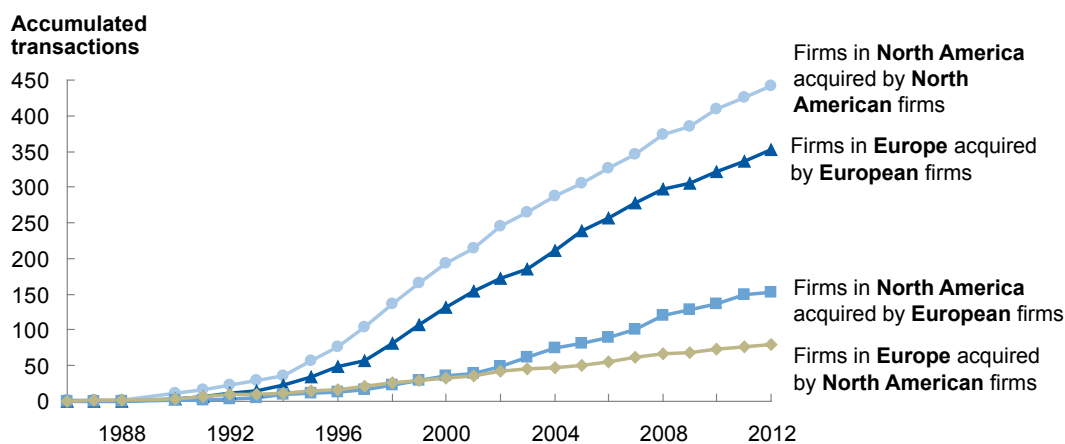
Scenarios for the future market structure

How far will the current trends take us? To what extent will we see a reshaping and consolidation of the European defence market in the coming years? Many variables are in play. European Commission directives and legislative initiatives underway on the European level are opening up cross-border competition and are reducing the number of legal exemptions from European open tender procedures (for more, see “The regulatory context for defence industry consolidation” on Page 30). And national governments, which are both the demand side of the market and the regulators of a largely nationally oriented industry, have many levers to shape the future design of the European defence industry.

Europe has twice as many competitors as the US in 40 percent of the defence sub-sectors.

Since the mid-90s, continuously strong consolidation activity in both the US and Europe, with Europe slightly lagging behind

Exhibit 12



- Continuously strong consolidation activity since the mid-90s
- Accumulated number of transactions within US ~ 25% higher than within Europe
- European consolidation in recent years focused on smaller, not mega-mergers
- Since 2002, intensified transactions of European firms acquiring US firms, while US acquisitions in Europe remain stable

The extent of demand consolidation and supply-side liberalisation determines the implications for industry.

It is important to note that around a quarter of Europe's top 30 defence companies still have large state shareholdings. What is the implication? First, compared to the end of the Cold War, when governments held large or controlling stakes in 10 out of the top 15 companies, European industry today works largely according to the logic of the private market, where companies need to look for solid returns – be it in the civil markets or global defence export markets. However, secondly, when compared to the US, where 100 percent of the largest 10 companies' shares are in private hands, in Europe there is still a stronger role of government in some aspects of the market. To be sure, there is of course a political and strategic rationale for such stronger control and even government ownership as an instrument of security policy. In any case, the extent of further liberalisation, which then would drive privatisation, needs to be factored in when looking at the changing market structure.

If the experience of the US is any guide, it suggests that competition and consolidation objectives will be balanced against each other, with

the ideal number of competitors varying by segment. Europe's current state is depicted in Exhibit 13. In this uncertain environment a systematic, scenario-based approach to thinking about the likely shape of the European defence market can be helpful. Two relatively independent forces will determine the broad contours of the market.

As depicted in Exhibit 14, there are two shaping forces (shown on the two axes), which drive four potential scenarios varying in competitive intensity. The two forces are:

The extent of further demand consolidation (high or low), shown on the horizontal axis, which is driven by budget reductions. Such greater demand-side consolidation and collaboration will place more pressure on industry to consolidate. As shown in the earlier chapters, pooling of demand creates productivity mainly through scale economies on the production side. This requires consolidation of supply structures. The extreme poles on the spectrum of

Exhibit 13

The consolidation potential in Europe varies significantly by product segment

Fragmentation of defence market by equipment category
Number of competitors in Europe by equipment category



**In ~ 50% of the equipment categories, more than 5 competitors exist
Especially in these categories, the consolidation pressure is rather high**

¹ Tactical, mini, micro, others
SOURCE: McKinsey analysis

demand consolidation in Exhibit 14 are a very national focus (far left-hand side) and the fully integrated approach (far right-hand side). These correspond with low consolidation pressure (increasing budgets) and very high consolidation pressure (stark budget cuts), respectively. As our survey shows, however, the more moderate in-between scenarios (forming the spectrum of the scenarios shown) are more likely: the clear majority, i.e. 73 percent of the leaders we surveyed, expect either stabilisation or a slight decline of defence budgets.

The extent of supply-side liberalisation (high or low), on the vertical axis, will be the second determinant. Effective supply-side liberalisation depends largely on how national legislation implements and applies European directives 2009/43/EC and 2009/81/EC (see “The regulatory context for defence industry consolidation” on Page 30). Specifically, the key question will be the degree to which true liberalisation (that is, open cross-border competition and clearly restricted application of Article 346 of the Lisbon

Treaty) supersedes current behaviours and practices. The latter include the desire to ensure a correspondence between national spend and national supply, i.e. by enforcing offset practices such as *juste retour*.

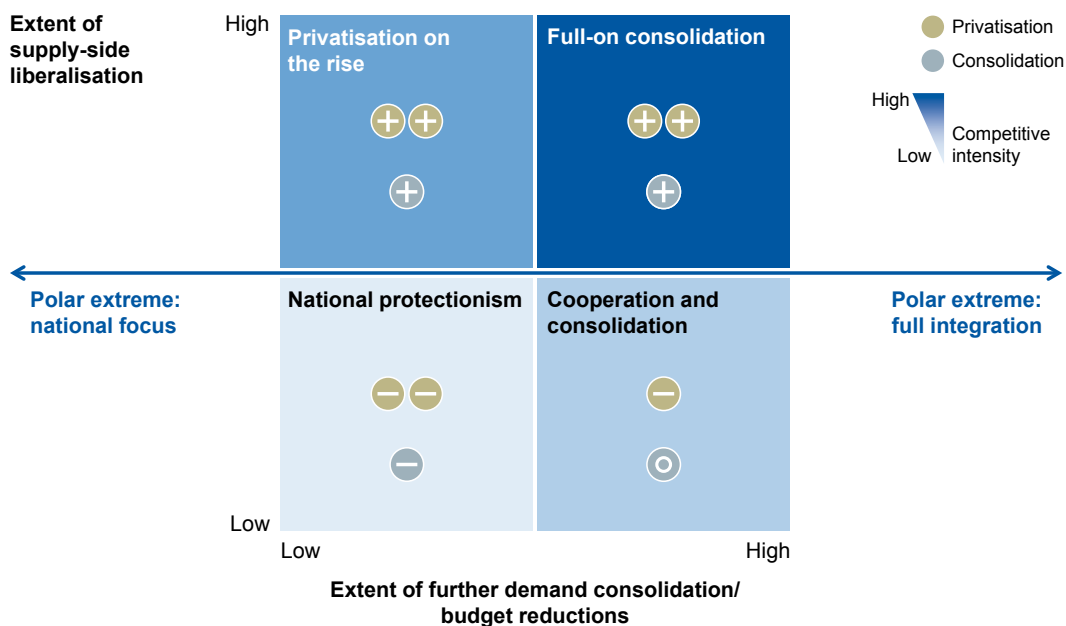
It is important to note that these two forces are largely independent of each other with differing institutional and decision-making processes shaping each of them. As a result, there are scenarios of demand consolidation without supply consolidation and vice versa, which industry will have to prepare for. As shown in Exhibit 14, the extent of privatisation and consolidation will therefore differ depending on the scenario.

In a scenario exhibiting elements of *national protectionism* (lower left quadrant), with low budget pressure and little true liberalisation, the industry’s competitive intensity will likewise be low. This would prevent certain supply-side synergies and would require governments to continue to support a national market structure through demand-side arrangements.

Industry has to be prepared for four consolidation scenarios.

Industry is likely to see further consolidation – the extent of which varies by scenario

Exhibit 14



SOURCE: McKinsey analysis

Europe's industrial competencies have to be actively considered in decisions on supply- and demand-side consolidation.

The key point here is that without liberalisation policies there will be limited supply consolidation. As such, a scenario of *cooperation and consolidation* (lower right quadrant), based on high budget pressure without significant liberalisation would also see relatively little change to industry structure. Privatisation holds the key here. Without it, industry will not have adequate incentives to merge.

In contrast, a scenario of *privatisation on the rise* (upper left quadrant), driven by effective liberalisation of procurement policies and truly competitive bidding in Europe-wide tenders, would provide a significant impetus for privatisation – even in the absence of severe budget pressure and demand consolidation. It would see additional and more significant large-scale supply-side mergers and acquisitions. Due to the stronger operation of market forces, the industrial base of a country could only continue to exist if its cost structure became competitive, which would drive efficiency and favour privatisation. As governments will put less competitive assets on the

market, many strategic buyers will be tempted by the potential for cost and growth synergies.

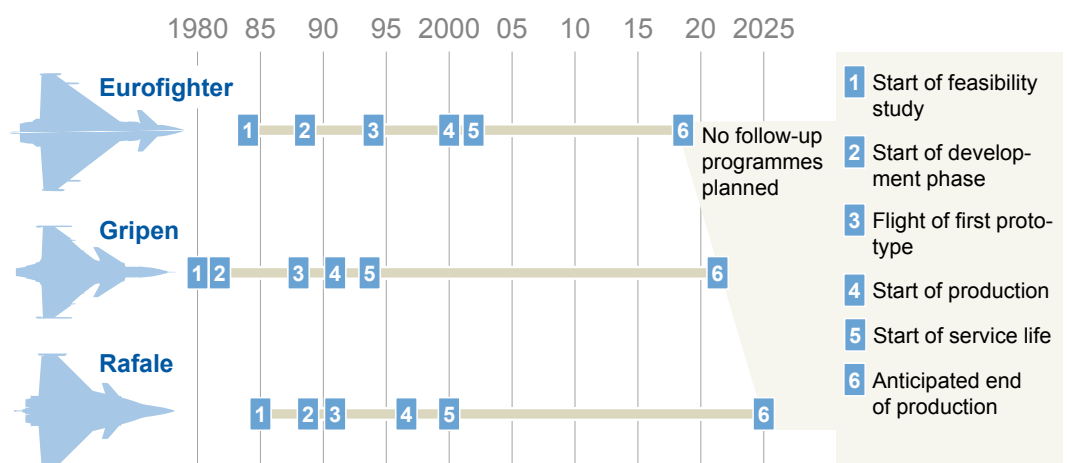
If both the liberalisation and the budget pressure should be high, a *full consolidation* scenario with a strong push towards both privatisation and consolidation (upper right quadrant) would result. In addition to the scenarios with moderate or low budget pressure, privatisation in this case will not only be driven by an efficiency rationale but also by national divestment strategies and the urge to generate short- or medium-term liquidity.

What it means for industry

Evaluating the strategic implications of these two forces, and acting on them decisively, can be a real source of competitive advantage. Our evaluation of the US consolidation wave 15 years ago shows that firms that moved late to acquire others paid substantial premiums, which hindered their quest to generate competitive advantage from their mergers.⁷ Today, European companies can realise significant value by preparing contingent

Exhibit 15

Potential effects on the industrial base should be evaluated as part of the procurement decision-making process



The lack of “structuring programmes” can lead to a drain of defence specialists and might ultimately endanger the sustainability of certain industrial competences

strategies for the different scenarios, such that they may be ready for any of the potential opportunities. In all cases, they should prepare a perspective on each of the sectors in which they are active or interested, as the potential for consolidation varies considerably by segment. As noted, some are already thoroughly consolidated, with a duopoly or even a monopoly in place, but most have many active competitors.

Industrial competences

Apart from strategy, the changes in market structure will also affect the industry in another way: its skills. Decisions made by governments and MODs regarding consolidation will directly affect the skillset, know-how and other competences that industry provides, both now and in the distant future. Military product life cycles are very long and decisions made today will have consequences decades down the road.

As a practical illustration, Exhibit 15 shows the milestones in the history of the three European fighter jet programmes, from the first feasibility study to the anticipated end of production based on current forecasts. All three programs will likely come to an end between 2018 and 2025. Furthermore, at present no specific follow-up programmes are planned for the next few years.

Export opportunities – subject to national export regimes – help to extend certain critical skills and programmes. Our surveys with industry leaders show that higher and positive

growth rates are expected in Asia-Pacific and the Middle East.⁸ Whilst industry is of course looking to realize these pockets of growth through international expansion, business leaders also face the challenges and limits of emerging markets' potential. Three limiting factors stand out: first, the emerging markets are still relatively small in absolute terms. Despite a higher annual growth rate of around 5 percent⁹, only around 30 percent of global defence spend occurs outside the large Western "home" markets, China and Japan. Second, most emerging regions have ambitions to develop their own industrial base and national champions. This will continue to limit market access and require the transfer of technology and skills. Third, the intensity of competition for the markets is high – as can be observed in the many fighter jet competitions, which often involved multiple European competitors. As a result, exports alone will not suffice to sustain the breadth of the current European Defence Technological and Industrial Base (EDTIB).

A decision to consolidate thus has serious ramifications, and should be made with a strategic view of the core competences of European industry and what their loss might mean. That view should include the effects on other technologies requiring similar skills. Unmanned aerial vehicles, for example, rely for their success on the expertise of many in the industry who developed their knowledge designing and building fighter jets.

Exports help sustain the European Defence Technological and Industrial Base but do not suffice.

“The regulatory context for defence industry consolidation”

Several European rules have a bearing on potential consolidation.

Article 346

Under Article 346 of the Lisbon Treaty (formerly Article 296 of the Maastricht Treaty), EU member states are not obliged to take measures which they consider contrary to the “essential interest of its security.”¹⁰ These might include certain decisions on the production or trade of defence-related products or the disclosure of information. Exemptions under Article 346 are valid only if the essential security interests of a country, not its economic interest, are concerned. The broad application of Article 346 has been criticised as protectionism, and the European Commission has challenged several exemptions declared under this article.

Offsets

Offsets are contractual arrangements, often sanctioned by national law, that require foreign suppliers of defence-related goods to make compensatory purchases of domestically-produced goods or other commitments. Offsets can take many different forms, such as domestic sourcing quotas, direct investments, sub-contracts for domestic suppliers or other “juste retour” practices. Offsets have been criticised as discriminatory, and some countries such as France or Germany do not allow offsets as a matter of policy.

Intra-Community Transfer Directive (2009/43/EC)

This directive aims to “ensure the proper functioning of the internal markets” by “simplifying terms and conditions of transfer of defence-related products within the [European] Community.”¹¹ To achieve this goal, the directive defines a European licencing system, comprising three types of licence, to replace the heterogeneous landscape of defence export regulations crafted by national legislatures. These national export regulations have created market barriers and have hampered intra-EU competition. By Article 18 of the directive, the new measures shall apply from 30 June 2012 and are already active in most member states.

Security Procurement Directive (2009/81/EC)

This directive sets out to provide a binding framework for cross-border defence procurement within the European Union, opening the market to intra-EU competition and setting clear rules for procurement procedures. The directive applies to the procurement of defence-related service and work contracts above a threshold of EUR 412,000 (service contracts) and EUR 5.15 million (work). The directive requires that authorities “shall treat economic operators [...] in a non-discriminatory manner.”¹² To ensure competition, a minimum of three candidates is required per tender. Furthermore, the contract has to be awarded to the candidate who offers the “most economically advantageous tender from the point of view of the contracting authority”. The relevant criteria have to be weighted and specified in the contract documentation to grant full transparency in the awarding process. Note that Article 346 of the Lisbon Treaty may apply to some tenders covered by this directive, and may lead to exclusions.

Outlook: A pragmatic approach

“What we need are tangible projects: all initiatives, whether bilateral or trilateral or in group, are welcome! Cooperation will be different according to projects and groups of countries. There is no one-size-fits-all. We must be pragmatic. This is the way European defence, like the Union itself, is being built: pragmatically.”

Herman van Rompuy,
President of the European
Council⁶

Our interviews and background discussions as well as the analyses performed have demonstrated one essential point: the future of European defence, both for MODs and industry, will be shaped by the ability to tackle the productivity challenge effectively. Neither military capabilities nor industrial competitiveness can be sustained or enhanced without it.

The future of European defence cooperation is often viewed with a certain justified skepticism due to failed attempts of the past. In particular, the history of pooling and sharing has been frustrating for both government and industry, which now take a jaded view of its complexities and operational challenges. Such programmes require several nations to participate. The complexity of programmes involving more than a handful of nations seems to increase exponentially when it comes to topics like R&D collaboration and aligned demand specification. For that reason, over 60 percent of European defence collaboration projects involve five nations or fewer.¹³

So, in summary, what steps can and should decision-makers take to secure the future of European defence? What would be the cornerstones of an action plan that gets specific on how to collectively secure European military capabilities as well as the European Defence Technological and Industrial Base (EDTIB)? Five concrete actions can drive progress today and lay the foundation for further action down the road.

Pull all available productivity levers on the national level

As a no-regret move, the immediate productivity gains that result from levers that require no international cooperation should be exhausted. Specifically, MODs can set up task forces that examine priority capabilities, where military output can be sustained through levers such as smart procurement and lean maintenance, Design-to-Value approaches and improved contracting. Some MODs have already made significant steps in this direction. Also, a systematic evaluation of the optimal division of which tasks should be conducted in-house and which can be more efficiently handled through third parties

(using smart contracting) is required. All this cannot just cut costs, but also create more military output.

Prepare the ground for more European cooperation and coordination

A few key prerequisites for successful cooperative programmes are: a process for joint capability planning, transparency on procurement pipelines, and an alignment of replacement cycles across collaboration partners. A European defence review might promote this process.

Build a business case for each capability and a system of sharing gains from enhanced productivity

Articulating a strategic perspective and making the business case for industry will be a challenge for European governments, as the potential derives from the inefficiencies of the past and present. Once the incentives through such a strategic perspective are in place, however, embarking on the path of gradual adjustments and operational enhancements can then be handled by MODs and industry jointly. To ensure that this shared interest in the future of European defence is translated into pragmatic and cooperative approaches, MODs and industry need to find new forms of cooperation and contracting that share between them the massive efficiency gains that were sketched out in this paper.

Take a pragmatic, cluster-centred approach to pooling and sharing as well as to industrial cooperation

The idea of some large, “framework nations” driving cooperation with a cluster of other nations to plan for and produce certain capabilities would provide a pragmatic starting point. At this time, such an approach seems to be the most likely and promising way forward for European defence. Not only would this help to manoeuvre within the space defined by political will, but it would also help to mitigate the operational complexity of multinational programmes with too many participants.

Allow market forces to address the current fragmentation on the supply side

To realise the productivity potential from pooling and sharing, MODs need an industry that can realise the ensuing economies of scale and scope. Consolidation can yield efficiencies such as higher plant utilisation and workforce optimisation, reducing unit costs. As our scenarios have shown, such supply-side consolidation requires liberalisation policies.

Our analysis shows that European industry consolidation has continued to take place on a certain scale – however, consolidation on a larger scale and across borders will require more political engagement and support. To date, a high level of uncertainty about nations' actual desires for the future state of each segment of the industry, and therefore about the consolidation potential in each segment, prevents industry

from pulling various levers that will produce big synergies. A clear vision of how decision-makers intend to balance the key economic objectives of efficiency from scale/consolidation as well as sufficient competition, i.e. the desired end state of the already embarked path of liberalisation and consolidation, could provide transparency to let market forces operate more freely.

The future of European defence is defined by a real productivity imperative. Tackling this challenge on the national and European level will require a comprehensive transformation of national MODs, industry and market policies. As this report has shown, the opportunity is sizeable. Pragmatic and cooperative efforts by European countries can realise the potential, and secure their desired ambition for military capability within tighter budgets, while sustaining and enhancing the European Defence Technological and Industrial Base.

Footnotes

- 1 Based on NATO 2012 data, "Secretary General's Annual Report 2012".
 - 2 See Anders Fogh Rasmussen, "NATO After Libya: The Atlantic Alliance in Austere Times". Foreign Affairs. (July/August 2011).
 - 3 See NATO's Strategic Advisors Group's conclusions in this respect in the Atlantic Council's Issue Brief on Learning from Libya: The Right Lessons for NATO, acus.org.
 - 4 See Anders Fogh Rasmussen, "NATO After Libya: The Atlantic Alliance in Austere Times". Foreign Affairs. (July/August 2011).
 - 5 An analysis of the relative change in defence spending and GDP growth shows the close long-term correlation of the two trends and provides some evidence to this intuitive notion. See Jonathan Ablett and Andrew Erdmann, "Follow the money: Strategy, scenarios, and the global shift in defense power". McKinsey on Government: Special issue on defence, Spring 2013, mckinsey.com.
 - 6 See David Chinn, "Cut fat, not muscle: Preserving combat power when budgets are falling". McKinsey on Government: Special issue on defence, Spring 2013, mckinsey.com.
 - 7 "Managing a downturn: How the US defense industry can learn from its past". McKinsey on Government: Special issue on defence, April 2013, mckinsey.com.
 - 8 See John Dowdy and Melanie Taylor, "Defense outlook 2015: A global survey of defense-industry executives". McKinsey on Government: Special issue on defence, Spring 2013, mckinsey.com.
 - 9 Africa, Latin America, Middle East, Asia and Oceania, East and Central Europe. 2000 - 2011.
 - 10 The European Union, Lisbon Treaty.
 - 11 European Commission, Intra-Community Transfer Directive 2009/43/EC.
 - 12 European Commission, Security Procurement Directive 2009/81/EC.
 - 13 The Impact of the Financial Crisis on European Defence. Part 1"; Directorate-General for External Policies of the Union, Directorate B, Brussels, April 2011.
-
- a "NATO After Libya: The Atlantic Alliance in Austere Times". Foreign Affairs. (July/August 2011).
 - b "'Pool it or loose it' is becoming a reality". European Defence Matters. (Issue 2, 2012).
 - c "Defence in Europe, pragmatically forward". Speech at the annual conference of the European Defence Agency. (March 2013).

Contacts



David Chinn

Director
London
+44 (20) 7961-5877
David_Chinn@mckinsey.com



Gundbert Scherf

Engagement Manager
Berlin
+49 (30) 8845-2356
Gundbert_Scherf@mckinsey.com



John Dowdy

Director
London
+44 (20) 7961-5568
John_Dowdy@mckinsey.com



Wolff van Sintern

Principal
Düsseldorf
+49 (211) 136-4148
Wolff_van_Sintern@mckinsey.com



Detlef Kayser

Director
Hamburg
+49 (40) 3612-1584
Detlef_Kayser@mckinsey.com

Team



Christian Jansen



Kai Wittek

Research: Nadine Griebmann

Editor: Mark Staples

This publication is not intended to be used as the basis for any transaction. Nothing herein shall be construed as legal, financial, accounting, investment, or other type of professional advice. If any such advice is required, the services of appropriate advisers should be sought. No part of this publication may be copied or redistributed in any form without the prior written permission of McKinsey & Company.